```
##  tatus: Path 1 of [Dialog Information Services via Modem]

##  tatus: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)
Tr   g 3106900061...Open

DI   G INFORMATION SERVICES
PL   E LOGON:
 *** **** HHHHHHHH SSSSSSSS?
#   tatus: Signing onto Dialog
 *** ***
EN   PASSWORD:
 **  *** HHHHHHHH SSSSSSSS?zts0dhlz ********
We   e to DIALOG
#   tatus: Connected


Di   level 00.05.02D

La   ogoff:  20may00 14:57:14
Lo   File001 21may00 10:20:10
**   NOUNCEMENT ***
NE   LE RELEASED
**    Scientist (File 369)
***  sweek Fulltext (File 482)
***  O/PCT Patents Fulltext (File 349)

UP   NG RESUMED
**   ge World Markets News (File 609,809)
**    Worth Star-Telegram (File 427)
**   ral News Service (File 660)
**   as City Star (File 147)

                         ***

RE   D
***  LINE (File 157)
**   NE  (FIle 154,155)
**   s in Print (File 470)
**   ss Latin America (File 586)

                         ***

RE   )
**   al Mobility (File 64). Please use 2,6,8,63,65,94,99,108,238,266,
5

>    immediate news with Dialog's First Release
      service.  First Release updates major newswire
     ases within 15 minutes of transmission over the
     .  First Release provides full Dialog searchability
     full-text features.  To search First Release files in
     earch simply BEGIN FIRST for coverage from Dialog's
     d spectrum of news wires.

     > Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >    of new databases, price changes, etc.      <<<
              ****
K    set to 50.
HI   set on as '*'
**                                  ***

F    1:ERIC  1966-2000/Mar
     (c) format only 2000 The Dialog Corporation
*1   1: File has been reloaded. See HELP NEWS 1.

     t  Items  Description
     -  -----  -----------
```

?b , 5, 73
21may00 10:20:22 User259876 Session D61.1
$0.40 0.115 DialUnits File1
).40 Estimated cost File1
).01 TYMNET
).41 Estimated cost this search
).41 Estimated total session cost 0.115 DialUnits

SY :OS - DIALOG OneSearch
155:MEDLINE(R) 1966-2000/Jul W2
(c) format only 2000 Dialog Corporation
*F '55: **MEDLINE has been reloaded. Accession numbers changed.**
5:Biosis Previews(R) 1969-2000/May W3
(c) 2000 BIOSIS
73:EMBASE 1974-2000/Apr W4
(c) 2000 Elsevier Science B.V.
*F **73: New drug links added. See Help News73.**

et Items Description
--- ----- -----------
?s ervate?
1 560 COACERVATE?
?s al (w) vector?) or (retrovirus or adenovirus or HSV-1) or (adeno-associated (w)
vi
477375 VIRAL
207876 VECTOR?
2433 VIRAL(W)VECTOR?
29412 RETROVIRUS
45860 ADENOVIRUS
97 HSV-1
0 ADENO-ASSOCIATED
977253 VIRUS
0 ADENO-ASSOCIATED(W)VIRUS
2 76236 (VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
?s nd s2
560 S1
76236 S2
3 3 S1 AND S2
?r
... leted examining records
4 2 RD (unique items)
?t ,k/all

4/ **1 (Item 1 from file: 155)**
DIA R)File 155:MEDLINE(R)
(c) mat only 2000 Dialog Corporation. All rts. reserv.

0 3 99210253
* **rvate* microspheres as carriers of recombinant adenoviruses.**
asundaram S; Feinstein S; Nicholson JP; Leong KW; Garver RI Jr
ment of Biomedical Engineering, Johns Hopkins University,
Ba e, Maryland 21205, USA.
gene therapy (UNITED STATES) Mar-Apr 1999, 6 (2) p107-12,
IS 9-1903 Journal Code: CE3
ages: ENGLISH
ent type: JOURNAL ARTICLE

* **vate* microspheres as carriers of recombinant adenoviruses.**
bolus administration, both of which limit the efficiency of target
ti nfection. As a first step toward overcoming these limitations, rAds
w capsulated in *coacervate* microspheres comprised of gelatin and
a followed by stabilization with calcium ions. Ultrastructural
e on showed that the microspheres formed in this manner were 0.8-10
m in diameter, with viruses evenly distributed. The microspheres

a[illegible] d a sustained release of *adenovirus* with a nominal loss of
bi[illegible]vity. The pattern of release and the total amount of virus released
wa[illegible]dified by changes in microsphere formulation. Administration of the
a[illegible]irus -containing microspheres to human tumor nodules engrafted in
mi[illegible]owed that the viral transgene was transferred to the tumor cells. It
is[illegible]cluded that *coacervate* microspheres can be used to encapsulate
bi[illegible]ve rAd and release it in a time-dependent manner.

4/[illegible]'2 **(Item 1 from file: 5)**
DI[illegible]R)File 5:Biosis Previews(R)
(c[illegible]) BIOSIS. All rts. reserv.

1[illegible]4 BIOSIS NO.: 199800107956
Re[illegible]**nant *adenovirus* can be encapsulated and released from *coacervate***
m[illegible]**pheres in a time-dependent fashion.**
AUT[illegible]: Kalyanasundaram S(a); Feinstein Sharon; Nicholson J P; Leong K W(a)
;[illegible]ver R I Jr
AU[illegible]DDRESS: (a)Johns Hopkins Univ., Dep. Biomed. Eng., Baltimore, MD**

JO[illegible]: Cancer Gene Therapy 4 (6 CONF. SUPPL.):pS23 Nov.-Dec., 1997
CO[illegible]ICE/MEETING: Sixth International Conference on Gene Therapy of
C[illegible] San Diego, California, USA November 20-22, 1997
I[illegible] 29-1903
RE[illegible]YPE: Citation
LAN[illegible]E: English

Rec[illegible]**nant *adenovirus* can be encapsulated and released from *coacervate***
m[illegible]**pheres in a time-dependent fashion.**
DE[illegible]TORS:
[illegible]SMS: *adenovirus* (Adenoviridae...
[illegible]ALS & BIOCHEMICALS: Ad-CMV-luc marker gene {*adenovirus*
[illegible]omegalovirus-luciferase marker gene}
[illegible]LANEOUS TERMS: *coacervate* microspheres...

?ds

Se[illegible] Items Description
S[illegible] 560 COACERVATE?
S[illegible] 76236 (VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1)
OR (ADENO-ASSOCIATED (W) VIRUS)
S[illegible] 3 S1 AND S2
S[illegible] 2 RD (unique items)
?s [illegible]rolled (w) release)
1443130 CONTROLLED
703746 RELEASE
[illegible] 9989 (CONTROLLED (W) RELEASE)
?[illegible]sphere?
[illegible] 38857 MICROSPHERE?
?[illegible]d s6 and s2
9989 S5
38857 S6
76236 S2
[illegible]7 1 S5 AND S6 AND S2

?t

(Item 1 from file: 73)
D[illegible])File 73:EMBASE
([illegible] Elsevier Science B.V. All rts. reserv.

0[illegible] EMBASE No: 1999145361
Pr[illegible]**ation and characterization of poly (D,L-lactide-co-glycolide)**
***mi[illegible]pheres* for *controlled* *release* of poly(L-lysine) complexed**
pl[illegible] DNA
[illegible]Y.; Woo B.H.; Gebrekidan S.; Ahmed S.; DeLuca P.P.
[illegible]eLuca, University of Kentucky, College of Pharmacy, Faculty of
[illegible]eutical Sciences, Rose Street, Lexington, KY 40536 United States

R EMAIL: ppdelul@pop.uky.edu
aceutical Research (PHARM. RES.) (United States) 1999, 16/4
513)
: PHREE ISSN: 0724-8741
ENT TYPE: Journal; Article
AGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
R OF REFERENCES: 15
DE SCRIPTORS:
*p actin--pharmaceutics--pr; *polylysine--pharmaceutics--pr; *plasmid
DN
pp ; *microsphere*; liposome; deoxyribonuclease i
MI DESCRIPTORS:
*d livery system; *DNA conformation
DI cture; *controlled* *release* formulation; particle size;
in nicity; *retrovirus*; biodegradation; article; priority journal
CA STRY NO.: 26780-50-7, 34346-01-5 (polyglactin); 25104-18-1,
8-63-0, 33960-24-6, 38000-06-5, 73565-56-7 (polylysine); 9003-98-9
xyribonuclease i)
SE HEADINGS:
rug Literature Index
harmacy

?

	Items	Description
S1	560	COACERVATE?
S2	76236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
S3	3	S1 AND S2
S4	2	RD (unique items)
S5	9989	(CONTROLLED (W) RELEASE)
S6	38857	MICROSPHERE?
S7	1	S5 AND S6 AND S2

?
eic (w) acid) or (vector?)

195108	NUCLEIC
2848387	ACID
171406	NUCLEIC(W)ACID
207876	VECTOR?
373351	(NUCLEIC (W) ACID) OR (VECTOR?)

?
d s8 and s5

560	S1
373351	S8
9989	S5
0	S1 AND S8 AND S5

?
d s6 and s8

9989	S5
38857	S6
373351	S8
1	S5 AND S6 AND S8

?

(Item 1 from file: 155)
)File 155:MEDLINE(R)
at only 2000 Dialog Corporation. All rts. reserv.

0 92096141
ing and *controlled* *release* of antigens for the effective
in n of secretory antibody responses.
ky J; Eldridge JH
sity of Alabama, Birmingham.
t opinion in immunology (ENGLAND) Aug 1991, 3 (4) p492-5, ISSN
0 5 Journal Code: AH1
ges: ENGLISH
nt type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
L ANNOUNCEMENT: 9204
e: INDEX MEDICUS
nimal; Human

iptors: *Mucous Membrane--Immunology--IM; *Vaccination--Methods--MT
ivants, Immunologic--Therapeutic Use--TU; Antibody Formation;
-Antibody Reactions; Bacterial Vaccines--Immunology--IM; Bacterial
s--Therapeutic Use--TU; Cholera Toxin--Therapeutic Use--TU;
es--Therapeutic Use--TU; Mice; *Microspheres*; Mucous Membrane
tion--SE; Viral Vaccines--Immunology--IM; Viral Vaccines
peutic Use--TU
egistry No.: 0 (Adjuvants, Immunologic); 0 (Bacterial Vaccines);
posomes); 0 (Viral Vaccines); 9012-63-9 (Cholera Toxin)

	Items	Description
S	560	COACERVATE?
S	76236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
S3	3	S1 AND S2
S4	2	RD (unique items)
S	9989	(CONTROLLED (W) RELEASE)
S	38857	MICROSPHERE?
S	1	S5 AND S6 AND S2
S	373351	(NUCLEIC (W) ACID) OR (VECTOR?)
S	0	S1 AND S8 AND S5
S	1	S5 AND S6 AND S8

d s6

	76236	S2
	38857	S6
1	44	S2 AND S6

nd (anionic or cationic)

	44	S11
	26549	ANIONIC
	35141	CATIONIC
?	1	S11 AND (ANIONIC OR CATIONIC)

(Item 1 from file: 73)

)File 73:EMBASE
Elsevier Science B.V. All rts. reserv.

EMBASE No: 1998373128

spects of hepatic drug delivery and gene therapy

Wu G.Y.; Zern M.A.
, College Building, Jefferson Medical College, 1025 Walnut Street,
lelphia, PA 19107-5083 United States
EMAIL: wu5@jeflin.tju.edu
Opinion on Investigational Drugs (EXPERT OPIN. INVEST. DRUGS) (
Kingdom) 1998, 7/11 (1795-1817)
EOIDE ISSN: 1354-3784
NT TYPE: Journal; Review
GE: ENGLISH SUMMARY LANGUAGE: ENGLISH
OF REFERENCES: 130

CRIPTORS:
ron; liposome; *microsphere*; ribozyme
ESCRIPTORS:
drug delivery system; *gene therapy
ulation; cell type; liver cell; *adenovirus*; adeno associated
retrovirus*; expression vector; simian virus 40; genetic disorder
y--et; genetic disorder--therapy--th; virus hepatitis--therapy--th
ell carcinoma--therapy--th; cancer cell; familial
lesterolemia--therapy--th; hemophilia--congenital disorder--cn;
a--therapy--th; alpha 1 antitrypsin deficiency--congenital
--cn; alpha 1 antitrypsin deficiency--therapy--th; crigler najjar
--therapy--th; review
EADINGS:
ncer
man Genetics
inical and Experimental Pharmacology

astroenterology

	Items	Description
S	560	COACERVATE?
S	76236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
S	3	S1 AND S2
S	2	RD (unique items)
S	9989	(CONTROLLED (W) RELEASE)
S	38857	MICROSPHERE?
S	1	S5 AND S6 AND S2
S	373351	(NUCLEIC (W) ACID) OR (VECTOR?)
S	0	S1 AND S8 AND S5
S	1	S5 AND S6 AND S8
S	44	S2 AND S6
S	1	S11 AND (ANIONIC OR CATIONIC)
?	nd ((amphiphilic (w) molecule) or (lipid) or (polylysine))	
	44	S11
	7191	AMPHIPHILIC
	272761	MOLECULE
	85	AMPHIPHILIC(W)MOLECULE
	427820	LIPID
	7509	POLYLYSINE
3	4	S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYSINE))

?
leted examining records
3 RD (unique items)
?,k/all

/1 (Item 1 from file: 155)
R)File 155:MEDLINE(R)

99422057
lysine improves gene transfer with *adenovirus* formulated in PLGA heres*.
ws C; Jenkins G; Hilfinger J; Davidson B
ment of Internal Medicine, University of Iowa College of Medicine, y, IA 52242, USA.
herapy (ENGLAND) Sep 1999, 6 (9) p1558-64, ISSN 0969-7128
Code: CCE
ct/Grant No.: R43CA67357, CA, NCI
ges: ENGLISH
t type: JOURNAL ARTICLE

lysine improves gene transfer with *adenovirus* formulated in PLGA heres*.
o gene transfer with recombinant *adenovirus* vectors can be by the immunogenicity of the *adenovirus* capsid proteins. work showed that formulation of the vector with biodegradable such as poly-lactic-glycolic acid (PLGA), polyethylene glycol r lipids, may shield the virus from inhibition by neutralizing s. Formulation of *adenovirus* in PLGA *microspheres* also allowed ded release in vitro. In experiments described here, we found that actant used in the formation of the primary emulsion could ntly improve the overall yield of virus released. We also tested cts of adding poly-L-lysine to *adenovirus* before encapsulation GA. Our results show that although PLL did not effect the yield of ncapsulated or released from the *microspheres*, it significantly the efficiency of gene transfer after release from the polymer.
tors: Adenoviridae--Genetics--GE; *Gene Therapy--Methods--MT; ansfer; *Genetic Vectors--Administration and Dosage--AD; *Lactic olyglycolic Acid; **Polylysine*; *Polymers; beta-Galactosidase s--GE; Biocompatible Materials; Chromatography, Liquid; Gene

ion; Hela Cells; *Microspheres*; Spectrum Analysis, Mass
al Name: beta-Galactosidase; (polylactic acid-polyglycolic acid
r; (Biocompatible Materials; (Genetic Vectors; (Polymers; (
ine*; (Polyglycolic Acid; (Lactic Acid

/2 **(Item 1 from file: 73)**
)File 73:EMBASE
) Elsevier Science B.V. All rts. reserv.

EMBASE No: 1999145361
tion and characterization of poly (D,L-lactide-co-glycolide)
heres* for controlled release of poly(L-lysine) complexed plasmid

Y.; Woo B.H.; Gebrekidan S.; Ahmed S.; DeLuca P.P.
eLuca, University of Kentucky, College of Pharmacy, Faculty of
ceutical Sciences, Rose Street, Lexington, KY 40536 United States
EMAIL: ppdelu1@pop.uky.edu
ceutical Research (PHARM. RES.) (United States) 1999, 16/4
13)
PHREE ISSN: 0724-8741
NT TYPE: Journal; Article
GE: ENGLISH SUMMARY LANGUAGE: ENGLISH
OF REFERENCES: 15

tion and characterization of poly (D,L-lactide-co-glycolide)
heres* for controlled release of poly(L-lysine) complexed plasmid

e. To produce and characterize controlled release formulations of
NA (pDNA) loaded in poly (D,L-lactide-co-glycolide) (PLGA)
heres* both in free form and as a complex with poly (L-lysine).
Poly (L-lysine) (PLL) was used to form pDNA/PLL complexes with
tion ratio of 1:0.125 and 1:0.333 w/w to enhance the stability of
ng *microsphere* preparation and protect pDNA from nuclease
pDNA structure, particle size, zeta potential, drug loading, in
lease properties, and protection from DNase I were studied.
The *microspheres* were found to be spherical with average
size of 3.1- 3.5 mum. Drug loading of 0.6% was targeted.
tion efficiencies of 35.1% and 29.4-30.6% were obtained for pDNA
/PLL loaded *microspheres* respectively. Overall, pDNA release
following the initial burst did not correlate with blank
ere* polymer degradation profile suggesting that pDNA release is
e diffusion controlled. The percentage of supercoiled pDNA in the
pDNA/PLL loaded *microspheres* was 16.6% and 76.7-85.6%
ely. Unencapsulated pDNA and pDNA/PLL degraded completely within
s upon the addition of DNase I. Encapsulation of DNA/PLL in PLGA
eres* protected pDNA from enzymatic degradation. Conclusions. The
how that using a novel process, pDNA can be stabilized and
ted in PLGA *microspheres* to protect pDNA from enzymatic
on.
RIPTORS:
tin--pharmaceutics--pr; **polylysine*--pharmaceutics--pr; *plasmid

microsphere; liposome; deoxyribonuclease i
ESCRIPTORS:
ture; controlled release formulation; particle size;
icity; *retrovirus*; biodegradation; article; priority journal
GISTRY NO.: 73565-56-7 (*polylysine*); 9003-98-9 (
ribonuclease i)

(Item 2 from file: 73)
File 73:EMBASE
Elsevier Science B.V. All rts. reserv.

EMBASE No: 1994284049

xic lymphocytes in the treatment and prevention of AIDS

ard T.J.; McAdam K.P.W.J.

ment of Clinical Sciences, London Schl Hygiene and Tropical Med,
St,London WC1E 7HT United Kingdom

Opinion on Therapeutic Patents (EXPERT OPIN. THER. PAT.) (United
m) 1994, 4/9 (1055-1063)

EOTPE ISSN: 1354-3776

NT TYPE: Journal; Review

GE: ENGLISH

CRIPTORS:

here*; adjuvant--drug development--dv; cd8 antigen--endogenous
--ec; glycoprotein gp 120; glycoprotein gp 160--drug development
man immunodeficiency virus vaccine--clinical trial--ct...

py--dt; inactivated vaccine--drug development--dv; lipopeptide
evelopment--dv; live vaccine--drug development--dv; major
patibility antigen class 1--endogenous compound--ec; phosphoryl
a--drug combination--cb; phosphoryl *lipid* a--drug development--dv
ome--endogenous compound--ec; saponin--drug combination--cb;
-drug development--dv; virus dna--pharmaceutics--pr; virus dna
evelopment--dv...

DESCRIPTORS:

presentation; cell killing; clinical trial; dendritic cell; helper
an; human immunodeficiency virus; immune response; immunogenicity;
chology; immunotherapy; nonhuman; pathogenesis; *retrovirus*;
virus cell interaction

STRY NO.: 88598-53-2 (phosphoryl *lipid* a); 8047-15-2 (saponin)

Items	Description
560	COACERVATE?
76236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
3	S1 AND S2
2	RD (unique items)
9989	(CONTROLLED (W) RELEASE)
38857	MICROSPHERE?
1	S5 AND S6 AND S2
73351	(NUCLEIC (W) ACID) OR (VECTOR?)
0	S1 AND S8 AND S5
1	S5 AND S6 AND S8
44	S2 AND S6
1	S11 AND (ANIONIC OR CATIONIC)
4	S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYSINE))
3	RD (unique items)

nd (calcium)

4	S13
804518	CALCIUM
0	S13 AND (CALCIUM)

nd (gelatin or alginate)

44	S11
25723	GELATIN
9359	ALGINATE
3	S11 AND (GELATIN OR ALGINATE)

eted examining records

2	RD (unique items)

,k/all

1 **(Item 1 from file: 155)**

File 155:MEDLINE(R)

) 99296265
gradable *alginate* *microspheres* as a delivery system for naked

val N; HogenEsch H; Guo P; North A; Suckow M; Mittal SK
ment of Veterinary Pathobiology, School of Veterinary Medicine,
University, West Lafayette, Indiana 47907, USA.
ian journal of veterinary research (CANADA) Apr 1999, 63 (2)
, ISSN 0830-9000 Journal Code: CKL
ict/Grant No.: GM55168-01, GM, NIGMS
ges: ENGLISH
nt type: JOURNAL ARTICLE

radable *alginate* *microspheres* as a delivery system for naked

alginate is a naturally occurring polysaccharide that can easily
ymerized into a solid matrix to form *microspheres* . These
dable *microspheres* were used to encapsulate plasmid DNA
ng the bacterial beta-galactosidase (LacZ) gene under the control
er the cytomegalovirus (CMV) immediate-early promoter or the Rous
virus (RSV) early promoter. Mice inoculated orally with
heres* containing plasmid DNA expressed LacZ in the intestine,
and liver. Inoculation of mice with *microspheres* containing both
smid DNA and bovine *adenovirus* type 3 (BAd3) resulted in a
ant increase in LacZ expression compared to those inoculated with
heres* containing only the plasmid DNA. Our results suggest that
uses are capable of augumenting transgene expression by plasmid DNA
vitro and in vivo.
-Galactosidase--Biosynthesis--BI; Biodegradation; Cattle; Cell Line
Transplantation; Cytomegalovirus--Genetics--GE; Drug Carriers;
Vectors; Mastadenovirus; Mice; Mice, Inbred BALB C; *Microspheres*;
Regions (Genetics); Recombinant Proteins--Biosynthesis--BI;
Viruses, Avian--Genetics--GE; 3T3 Cells

2 **(Item 2 from file: 155)**
)File 155:MEDLINE(R)
at only 2000 Dialog Corporation. All rts. reserv.

99210253
ate *microspheres* as carriers of recombinant adenoviruses.
asundaram S; Feinstein S; Nicholson JP; Leong KW; Garver RI Jr
ment of Biomedical Engineering, Johns Hopkins University,
e, Maryland 21205, USA.
gene therapy (UNITED STATES) Mar-Apr 1999, 6 (2) p107-12,
9-1903 Journal Code: CE3
ges: ENGLISH
nt type: JOURNAL ARTICLE

ate *microspheres* as carriers of recombinant adenoviruses.
us administration, both of which limit the efficiency of target
nfection. As a first step toward overcoming these limitations, rAds
apsulated in coacervate *microspheres* comprised of *gelatin* and
* followed by stabilization with calcium ions. Ultrastructural
n showed that the *microspheres* formed in this manner were 0.8-10
n diameter, with viruses evenly distributed. The *microspheres*
d a sustained release of *adenovirus* with a nominal loss of
ty. The pattern of release and the total amount of virus released
ied by changes in *microsphere* formulation. Administration of the
us*-containing *microspheres* to human tumor nodules engrafted in
ed that the viral transgene was transferred to the tumor cells. It
uded that coacervate *microspheres* can be used to encapsulate
rAd and release it in a time-dependent manner.
tors: Adenoviridae--Genetics--GE; *Gene Therapy--Methods--MT; *
eres*

```
Items   Description
  560   COACERVATE?
76236   (VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1)
     OR (ADENO-ASSOCIATED (W) VIRUS)
    3   S1 AND S2
    2   RD (unique items)
 9989   (CONTROLLED (W) RELEASE)
38857   MICROSPHERE?
    1   S5 AND S6 AND S2
73351   (NUCLEIC (W) ACID) OR (VECTOR?)
    0   S1 AND S8 AND S5
    1   S5 AND S6 AND S8
   44   S2 AND S6
    1   S11 AND (ANIONIC OR CATIONIC)
    4   S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYS-
     INE))
    3   RD (unique items)
    0   S13 AND (CALCIUM)
    3   S11 AND (GELATIN OR ALGINATE)
    2   RD (unique items)
very (w) agent?)
  271948  DELIVERY
 1746088  AGENT?
     354  (DELIVERY (W) AGENT?)
d s8 and s18
     560  S1
  373351  S8
     354  S18
       0  S1 AND S8 AND S18
nd (five (w) %)
      44  S11
  874645  FIVE
       0  %
       0  FIVE(W)%
       0  S11 AND (FIVE (W) %)

eted examining records
      26  RD S11 (unique items)
nd ((recombinant (w) protein) or (antigen))
      26  S21
  370118  RECOMBINANT
 2718232  PROTEIN
   20600  RECOMBINANT(W)PROTEIN
  811501  ANTIGEN
       3  S21 AND ((RECOMBINANT (W) PROTEIN) OR (ANTIGEN))
,k/all

1     (Item 1 from file: 155)
)File 155:MEDLINE(R)
at only 2000 Dialog Corporation. All rts. reserv.

   98020865
of immunization and *antigen* delivery systems for optimal mucosal
esponses in humans.
y J; Michalek SM; Moldoveanu Z; Russell MW
ent of Microbiology, Medicine, and Oral Biology, University of
t Birmingham 35294, USA.
Institute Mitteilungen (GERMANY)  Feb 1997,  (98) p33-43,
1-0457  Journal Code: 9KI
ct/Grant No.: AI28147, AI, NIAID; DE06746, DE, NIDCR; DE08182, DE,

es: ENGLISH
t type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL

f immunization and *antigen* delivery systems for optimal mucosal
esponses in humans.
```

ract, rectum, and perhaps genital tract may also function as sources
hoid cells that populate, with some selectivity, certain remote
effector sites. Furthermore, *antigen*-specific IgA antibodies can
ced in certain secretions (e.g., female genital tract) not only by
tion in the vicinity of corresponding mucosal tissues...
ple delivery of soluble antigens to mucosal membranes for
tion has stimulated extensive studies of strategies for effective
systems that would (a) increase the *antigen* absorption, (b)
its degradation, and (c) skew the outcome of immunization to a
goal (protective response to infectious diseases vs. tolerance; B
cell responses; mucosal vs. systemic). The induction of immune
s at a desired mucosal site can be accentuated with the use of a
antigen-delivery system including relevant bacterial or *viral*
, edible transgenic plants expressing microbial antigens,
ation of antigens in biodegradable *microspheres* or liposomes, and
or coadministration of antigens with cholera toxin B subunit.
only a few *antigen*-delivery systems extensively used in animal
ntation have been evaluated for their efficacy in humans. The
ion of various immunization routes and the use of suitable
* -delivery systems may accomplish an important task-the induction
sal immune responses at a location relevant to the site of entry of
..

'2 **(Item 1 from file: 73)**
)File 73:EMBASE

EMBASE No: 1995005330

ficiency retroviral-mediated gene transduction into CD34sup +
rified from peripheral blood of breast cancer patients primed with
rapy and granulocyte-macrophage colony-stimulating factor

Maruyama M.; Zhang N.; Levine F.; Friedmann T.; Ho A.D.
ncer Center, 200 W Arbor Drive,San Diego, CA 92103-8421 United

Gene Therapy (HUM. GENE THER.) (United States) 1994, 5/2
)8)
HGTHE ISSN: 1043-0342
T TYPE: Journal; Article
E: ENGLISH SUMMARY LANGUAGE: ENGLISH

ny-stimulating factor (GM-CSF). Purification of CD34sup + cells
ved by incubation with a murine anti-CD34 monoclonal antibody
d subsequently with paramagnetic *microspheres* (Dynal) coated
p anti-mouse IgGinf 1 (Fc). The CD34sup + cells were released from
by treatment with chymopapain. Flow cytometry analysis using...

rase chain reaction (PCR) analysis revealed that 67-100% of the
etic colonies contained the marker gene neo, indicating that
- cells purified by immunomagnetic *microsphere* method from
l mononuclear cells primed with hematopoietic growth factors are
sceptible to retroviral-mediated gene transfer. The expression of
termined by...

RIPTORS:
tigen*--endogenous compound--ec; *granulocyte macrophage colony
ng factor--drug therapy--dt
ere*; chymopapain; cyclophosphamide--drug therapy--dt; epirubicin
erapy--dt; fluorouracil--drug therapy--dt; hemopoietic growth
onoclonal antibody
ESCRIPTORS:
e; clinical trial; controlled study; flow cytometry; gene
n; gene targeting; gene therapy; gene transfer; hematopoietic
uman; human cell; marker gene; polymerase chain reaction;
us*

'3 **(Item 2 from file: 73)**
)File 73:EMBASE
Elsevier Science B.V. All rts. reserv.

EMBASE No: 1994284049
ic lymphocytes in the treatment and prevention of AIDS
ard T.J.; McAdam K.P.W.J.
ment of Clinical Sciences, London Schl Hygiene and Tropical Med,
St,London WC1E 7HT United Kingdom
Opinion on Therapeutic Patents (EXPERT OPIN. THER. PAT.) (United
m) 1994, 4/9 (1055-1063)
EOTPE ISSN: 1354-3776
NT TYPE: Journal; Review
GE: ENGLISH

CRIPTORS:
here*; adjuvant--drug development--dv; cd8 *antigen*--endogenous
--ec; glycoprotein gp 120; glycoprotein gp 160--drug development
an immunodeficiency virus vaccine--clinical trial--ct; human
ficiency virus vaccine--drug therapy--dt; inactivated vaccine--drug
ent--dv; lipopeptide--drug development--dv; live vaccine--drug
ent--dv; major histocompatibility *antigen* class 1--endogenous
--ec; phosphoryl lipid a--drug combination--cb; phosphoryl lipid a
evelopment--dv; proteasome--endogenous compound--ec; saponin--drug
on--cb...
DESCRIPTORS:
* presentation; cell killing; clinical trial; dendritic cell;
ll; human; human immunodeficiency virus; immune response;
icity; immunopathology; immunotherapy; nonhuman; pathogenesis;
us*; review; virus cell interaction

```
Items   Description
  560   COACERVATE?
 6236   (VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1)
        OR (ADENO-ASSOCIATED (W) VIRUS)
    3   S1 AND S2
    2   RD (unique items)
 9989   (CONTROLLED (W) RELEASE)
38857   MICROSPHERE?
    1   S5 AND S6 AND S2
 3351   (NUCLEIC (W) ACID) OR (VECTOR?)
    0   S1 AND S8 AND S5
    1   S5 AND S6 AND S8
   44   S2 AND S6
    1   S11 AND (ANIONIC OR CATIONIC)
    4   S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYS-
        INE))
    3   RD (unique items)
    0   S13 AND (CALCIUM)
    3   S11 AND (GELATIN OR ALGINATE)
    2   RD (unique items)
  354   (DELIVERY (W) AGENT?)
    0   S1 AND S8 AND S18
    0   S11 AND (FIVE (W) 8)
   26   RD S11 (unique items)
    3   S21 AND ((RECOMBINANT (W) PROTEIN) OR (ANTIGEN))
me?
59162   LIPOSOME?
s s8
59162   S23
373351  S8
430457  S23 OR S8
d s24
38857   S6
430457  S24
```

```
5      636  S6 AND S24
?      and (gelatin or alginate)
         636  S25
       25723  GELATIN
        9359  ALGINATE
6        26  S25 AND (GELATIN OR ALGINATE)
?
      leted examining records
7        21  RD (unique items)
?      nd (calcium or ((amphiphilic (w) molecule) or (lipid) or (polylysine)))
         21  S27
      804518  CALCIUM
        7191  AMPHIPHILIC
      272761  MOLECULE
          85  AMPHIPHILIC(W)MOLECULE
      427820  LIPID
        7509  POLYLYSINE
8         7  S27 AND (CALCIUM OR ((AMPHIPHILIC (W) MOLECULE) OR
             (LIPID) OR (POLYLYSINE)))
?      8,k/all

      7/1      (Item 1 from file: 155)
      R)File 155:MEDLINE(R)
      mat only 2000 Dialog Corporation. All rts. reserv.

      8   99210253
      rate *microspheres* as carriers of recombinant adenoviruses.
      asundaram S; Feinstein S; Nicholson JP; Leong KW; Garver RI Jr
      ment of Biomedical Engineering, Johns Hopkins University,
      re, Maryland 21205, USA.
      gene therapy (UNITED STATES) Mar-Apr 1999, 6 (2) p107-12,
      9-1903 Journal Code: CE3
      ges: ENGLISH
      nt type: JOURNAL ARTICLE

      rate *microspheres* as carriers of recombinant adenoviruses.
      lus administration, both of which limit the efficiency of target
      nfection. As a first step toward overcoming these limitations, rAds
      capsulated in coacervate *microspheres* comprised of *gelatin* and
      e* followed by stabilization with *calcium* ions. Ultrastructural
      on showed that the *microspheres* formed in this manner were 0.8-10
      in diameter, with viruses evenly distributed. The *microspheres*
      a sustained release of adenovirus with a nominal loss of
      ity. The pattern of release and the total amount of virus released
      fied by changes in *microsphere* formulation. Administration of the
      s-containing *microspheres* to human tumor nodules engrafted in
      ed that the viral transgene was transferred to the tumor cells. It
      luded that coacervate *microspheres* can be used to encapsulate
      rAd and release it in a time-dependent manner.
      tors: Adenoviridae--Genetics--GE; *Gene Therapy--Methods--MT; *
      heres*; *Calcium*--Pharmacology--PD; Cytomegalovirus--Metabolism
      ose-Response Relationship, Drug; Genetic *Vectors*; Luciferase
      ism--ME; Lung Neoplasms--Therapy--TH; Mice; Mice, Nude;
      y, Confocal; Microscopy, Electron, Scanning; Neoplasms,
      tal--Therapy--TH; Time Factors
      l Name: Luciferase; (Genetic *Vectors*; (*Calcium*

      9      (Item 2 from file: 155)
      File 155:MEDLINE(R)
      t only 2000 Dialog Corporation. All rts. reserv.

      0   98412957
      cation nanospheres as non-viral gene delivery vehicles.
      W; Mao HQ; Truong-Le VL; Roy K; Walsh SM; August JT
      ent of Biomedical Engineering, Johns Hopkins University,
```

e, MD 21205, USA. kleong@bme.jhu.edu
l of controlled release (NETHERLANDS) Apr 30 1998, 53 (1-3)
, ISSN 0168-3659 Journal Code: C46
ct/Grant No.: CA68011, CA, NCI
ges: ENGLISH
nt type: JOURNAL ARTICLE

heres synthesized by salt-induced complex coacervation of cDNA and
ons such as *gelatin* and chitosan were evaluated as gene delivery
. DNA-nanospheres in the size range of 200-750 nm could transfect a
of cell lines. Although the transfection efficiency of the
res was typically lower than that of lipofectamine and *calcium*
e controls in cell culture, the beta-gal expression in muscle of
ice was higher and more sustained than that achieved by naked...
ptors: DNA--Administration and Dosage--AD; *Genetic *Vectors*;
ction; Biological Availability; Cell Line; DNA--Pharmacokinetics
ce; Mice, Inbred BALB C; *Microspheres*; Particle Size; Polyamines
al Name: polycations; (Genetic *Vectors*; (Polyamines; (DNA

3 (Item 3 from file: 155)
File 155:MEDLINE(R)
t only 2000 Dialog Corporation. All rts. reserv.

97211988
**tion of *alginate* gel as a vehicle for *liposomes*. II. Erosion
nate* gel beads and the release of loaded *liposomes*.**
I; Nakashima H; Takagi M; Yotsuyanagi T; Ikeda K
y of Pharmaceutical Sciences, Nagoya City University, Japan.
l & pharmaceutical bulletin (JAPAN) Feb 1997, 45 (2) p389-93,
-2363 Journal Code: CZP
ges: ENGLISH
nt type: JOURNAL ARTICLE

**tion of *alginate* gel as a vehicle for *liposomes*. II. Erosion
nate* gel beads and the release of loaded *liposomes*.**
ossibility of producing *calcium*-induced *alginate* gel beads as a
for *liposomes* was explored. The maximal loading of egg
dylcholine *liposomes* (ca. 26 nm in diameter) in a fully-cured
.2 mm in radius, initial *alginate* concn. of 4%) was 2.9 x 10(-6)
or ca. 18%, and the size of the bead slightly increased with an
in *liposome* loading. The *liposomes* were well maintained within
lly-cured and washed beads. The *liposome* release from the
ed bead was much slower than that from the corresponding washed
a pH 7.4 releasing medium. The greater the *liposome* loading, the
e release of the vesicles. The *liposome* release was investigated
of *liposome* loading, swelling of the gel body, *calcium*
e and gel erosion, using washed beads. The *liposome* loading did
ct the bead erosion or *calcium* discharge but did the initial
ratio and *liposome* release. The results suggest that the loaded
s* are not uniformly distributed in the bead but are rather
concentrated to the center. Such an inhomogeneous distribution of
s* is possibly due to the fact that the gelation occurred
on the surface of the droplets, and the resulting gel network or
ts as semipermeable membrane for *liposomes* and forces the
to move into deeper concentric sections as gelation proceeds to
rior. As the *liposomes* loading increases, the forced migration
very limited because of concentrically decreasing extra room to
te the vesicles in the bead.
tors: Alginates; **Liposomes*; *Calcium*--Metabolism--ME;
Ion Concentration; *Microspheres*; Polymers--Metabolism--ME
l Name: Alginates; (*Liposomes*; (Polymers; (*Calcium*

(Item 1 from file: 5)
File 5:Biosis Previews(R)

BIOSIS. All rts. reserv.

BIOSIS NO.: 199799324247

rization of microencapsulated *liposome* systems for the controlled y of *liposome*-associated macromolecules.

Machluf Marcel; Regev Oren; Peled Yael; Kost Joseph; Cohen Smadar

DDRESS: (a)Program Biotechnol., Fac. Eng. Sci., Sherman Build., 17, New Campus, Ben-Gurion Univ. Nege**Israel

Journal of Controlled Release 43 (1):p35-45 1996

68-3659

YPE: Abstract

: English

rization of microencapsulated *liposome* systems for the controlled y of *liposome*-associated macromolecules.

: This paper describes the preparation and characterization of ncapsulated *liposome* systems (MELs) for the controlled delivery osome*-associated macromolecules. *Liposomes* were encapsulated *microspheres* of *calcium*-crosslinked *alginate*, with an nal membrane of *alginate*-poly(L-lysine) (PLL). The membrane ility to *liposomes* was highly dependent on PLL molecular weight, ration and reaction time with the *microspheres*. Membranes formed L of molecular weights ranging between 25 and 87 kDa retained more % of the *liposomes* within MELs, while those of PLL of 111 kDa ve allowed *liposome* release. The release was characterized with ial *liposome* burst, followed by a continuous release phase. It ested that the burst occurs as a result of membrane rupture upon ction of the internal core of the *microsphere*, in te-buffered saline. After re-establishment of the membrane, MELs d their *liposomes*, at a rate determined by the permeability ies of *alginate*-PLL membranes, and *liposome* surface charge. imaging of the released media, using cryo-transmission electron opy (cryo-TEM), revealed that *liposomes* maintained their lecular structure. MELs, coated with PLL of different molecular , showed different *liposome* release rates, after s.c. injection ce. Twenty-two days after injection, 71% of *liposome*-associated tivity was recovered in mice injected with MELs coated with 25 ile only 6% was recovered in mice receiving MELs coated with 214 e release pattern of a model antigen, (3H)-labeled bovine serum , from MELs was correlated with that of *liposomes*, indicating e protein is released mainly in the context of *liposomes*. These show the potential of MELs as controlled release systems for me*-associated macromolecules.

ANEOUS TERMS: ...*LIPOSOME*-ASSOCIATED MACROMOLECULES...

NCAPSULATED *LIPOSOME* SYSTEMS

(Item 2 from file: 5)

File 5:Biosis Previews(R)

BIOSIS. All rts. reserv.

BIOSIS NO.: 199598462648

n of *alginate* beads by emulsification/internal gelation. II. hemistry.

oncelet D(a); Poncelet De Smet B; Beaulieu C; Huguet M L; Fournier eld R J

DRESS: (a)INRS-Sante, Univ. Quebec, 245 Hymus Blvd., larie, PQ H9R 1G6**Canada

Applied Microbiology and Biotechnology 43 (4):p644-650 1995

5-7598

TYPE: Article

PE: Abstract

English

on of *alginate* beads by emulsification/internal gelation. II. chemistry.

: *Alginate* *microspheres* were produced by
fication/internal gelation of *alginate* sol dispersed within
ble oil. Gelification was initiated within the *alginate* sol by a
ion in pH (7.5 to 6.5), releasing *calcium* from an insoluble
x. Smooth, spherical beads with the narrowest size dispersion were
d when using low-guluronic-acid and low-viscosity *alginate* and a
te complex as the *calcium* *vector*. A more finely dispersed form
complexed *calcium* within the *alginate* sol promotes a more
neous gelification. *Microsphere* mean diameters ranging from 50
1000 mu-m were obtained with standard deviations ranging from 35%
of the mean.
ANEOUS TERMS: *ALGINATE* SOL...

SPHERE* MEAN DIAMETERS

(Item 1 from file: 73)
File 73:EMBASE

EMBASE No: 1995205823
ative study on the pulmonary delivery of tobramycin encapsulated osomes* and PLA *microspheres* following intravenous and eal delivery
E.A.; Alpar H.O.; Almeida A.J.; Gamble M.D.; Brown M.R.W.
eutical Sciences Institute, Aston University, Aston
e,Birmingham B4 7ET United Kingdom
of Controlled Release (J. CONTROL. RELEASE) (Netherlands) 1995
1-48)
JCREE ISSN: 0168-3659
T TYPE: Journal; Article
E: ENGLISH SUMMARY LANGUAGE: ENGLISH

ative study on the pulmonary delivery of tobramycin encapsulated osomes* and PLA *microspheres* following intravenous and eal delivery

ntravenously delivered microcapsular tobramycin were significantly an those produced by liposomal administration at 6 ($p \leq 0.025$) ($p \leq 0.05$). *Liposomes* however, produced pulmonary levels three ner than those of the free drug both at 6 ($p \leq 0.025$) and 24 h (p
..
ER NAMES: *lipid* products/United Kingdom; sigma/United Kingdom;
w england nuclear/United States; polyscience/United Kingdom;
nited Kingdom
RIPTORS:
here*; **liposome*--pharmaceutics--pr; **liposome*--drug
--cm; *polylactic acid--drug comparison--cm; *polylactic acid
utics--pr; *tobramycin--pharmacokinetics--pk; *tobramycin--drug
tion--ad; *tobramycin--drug concentration--cr; *tobramycin
utics...
l--pharmaceutics--pr; drug carrier--pharmaceutics--pr; *gelatin*
utics--pr; microcapsule--drug comparison--cm; microcapsule
utics--pr; phosphatidic acid--pharmaceutics--pr;
lylcholine--pharmaceutics--pr; polyvinyl alcohol--pharmaceutics
oisotope
RY NO.: 26100-51-6 (polylactic acid); 32986-56-4 (tobramycin);
5 (cholesterol); 9000-70-8 (*gelatin*); 55128-59-1...

(Item 2 from file: 73)
ile 73:EMBASE

EMBASE No: 1994182903

treal drug administration with depot devices

n D.C.; Anand R.
ent of Ophthalmology, Southwestern Medical Center, 5323 Harry
oulevard,Dallas, TX 75235 United States

Opinion in Ophthalmology (CURR. OPIN. OPHTHALMOL.) (United
1994, 5/3 (21-29)
COOTE ISSN: 1040-8738
T TYPE: Journal; Review
E: ENGLISH SUMMARY LANGUAGE: ENGLISH

administration carries significant risks. Eye diseases
ly suitable to this form of treatment include proliferative
inopathy and chronic intraocular infections such as
ovirus retinitis. *Liposomes*, which have been extensively
ted over the last two decades, have not found any acceptable
application. Nonerodible polymers such as the ethylvinyl
olyvinyl alcohol cup are in advanced phase III human trials. The
tatus of *microsphere* development in the treatment of posterior
isease is examined in the review and studies investigating the
uses of the osmotic minipump are mentioned.

IPTORS:
ere*; *cyclodextrin--pharmaceutics--pr; *ethylene vinyl acetate
--clinical trial--ct; *ethylene vinyl acetate copolymer
utics--pr; **gelatin*--pharmaceutics--pr; **liposome*--drug
-an; **liposome*--pharmacokinetics--pk; **liposome*--pharmaceutics
lyvinyl alcohol--pharmaceutics--pr; *polyvinyl alcohol--clinical

SCRIPTORS:
rial; cytomegalovirus infection--drug therapy--dt; drug
ility; drug clearance; drug half life; encapsulation;
mitis--drug therapy--dt; endophthalmitis--etiology--et; human;
layer; nonhuman; osmotic minipump; phase 1 clinical trial; phase
trial; priority journal; retinitis--etiology--et; retinitis
rapy--dt; review; vitreoretinopathy; pharmaceutics
RY NO.: 12619-70-4 (cyclodextrin); 24937-78-8 (ethylene vinyl
e copolymer); 9000-70-8 (*gelatin*); 37380-95-3...

ems	Description
560	COACERVATE?
236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
3	S1 AND S2
2	RD (unique items)
989	(CONTROLLED (W) RELEASE)
857	MICROSPHERE?
1	S5 AND S6 AND S2
351	(NUCLEIC (W) ACID) OR (VECTOR?)
0	S1 AND S8 AND S5
1	S5 AND S6 AND S8
44	S2 AND S6
1	S11 AND (ANIONIC OR CATIONIC)
4	S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYSINE))
3	RD (unique items)
0	S13 AND (CALCIUM)
3	S11 AND (GELATIN OR ALGINATE)
2	RD (unique items)
354	(DELIVERY (W) AGENT?)
0	S1 AND S8 AND S18
0	S11 AND (FIVE (W) 8)
26	RD S11 (unique items)
3	S21 AND ((RECOMBINANT (W) PROTEIN) OR (ANTIGEN))

```
 9162   LIPOSOME?
 0457   S23 OR S8
  636   S6 AND S24
   26   S25 AND (GELATIN OR ALGINATE)
   21   RD (unique items)
    7   S27 AND (CALCIUM OR ((AMPHIPHILIC (W) MOLECULE) OR (LIPID)
      OR (POLYLYSINE)))

TER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
w) delivery (w) system?)
1454446  GENE
 271948  DELIVERY
6089436  SYSTEM?
    834  (GENE (W) DELIVERY (W) SYSTEM?)
d s29
     44  S11
    834  S29
      0  S11 AND S29
 s29
     26  S26
    834  S29
      1  S26 AND S29
,k/all

1      (Item 1 from file: 155)
File 155:MEDLINE(R)
 only 2000 Dialog Corporation. All rts. reserv.

   98412957
ycation nanospheres as non-viral gene delivery vehicles.
W; Mao HQ; Truong-Le VL; Roy K; Walsh SM; August JT
ent of Biomedical Engineering, Johns Hopkins University,
, MD 21205, USA. kleong@bme.jhu.edu
 of controlled release (NETHERLANDS) Apr 30 1998, 53 (1-3)
 ISSN 0168-3659 Journal Code: C46
t/Grant No.: CA68011, CA, NCI
es: ENGLISH
t type: JOURNAL ARTICLE

eres synthesized by salt-induced complex coacervation of cDNA and
ns such as *gelatin* and chitosan were evaluated as gene delivery
. DNA-nanospheres in the size range of 200-750 nm could transfect a
f cell lines...

eta-gal expression in muscle of BALB/c mice was higher and more
than that achieved by naked DNA and lipofectamine complexes. This
elivery* *system* has several attractive features: (1) ligands can
igated to the nanosphere for targeting or stimulating
ediated endocytosis; (2) lysosomolytic agents can be incorporated

tors: DNA--Administration and Dosage--AD; *Genetic *Vectors*;
tion; Biological Availability; Cell Line; DNA--Pharmacokinetics
; Mice, Inbred BALB C; *Microspheres*; Particle Size; Polyamines
. Name: polycations; (Genetic *Vectors*; (Polyamines; (DNA


ems   Description
 560  COACERVATE?
6236  (VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1)
    OR (ADENO-ASSOCIATED (W) VIRUS)
   3  S1 AND S2
   2  RD (unique items)
3989  (CONTROLLED (W) RELEASE)
 857  MICROSPHERE?
   1  S5 AND S6 AND S2
 351  (NUCLEIC (W) ACID) OR (VECTOR?)
```

```
     0   S1 AND S8 AND S5
     1   S5 AND S6 AND S8
    44   S2 AND S6
     1   S11 AND (ANIONIC OR CATIONIC)
     4   S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYS-
      INE))
     3   RD (unique items)
     0   S13 AND (CALCIUM)
     3   S11 AND (GELATIN OR ALGINATE)
     2   RD (unique items)
   354   (DELIVERY (W) AGENT?)
     0   S1 AND S8 AND S18
     0   S11 AND (FIVE (W) ?)
    26   RD S11 (unique items)
     3   S21 AND ((RECOMBINANT (W) PROTEIN) OR (ANTIGEN))
 59162   LIPOSOME?
130457   S23 OR S8
   636   S6 AND S24
    26   S25 AND (GELATIN OR ALGINATE)
    21   RD (unique items)
     7   S27 AND (CALCIUM OR ((AMPHIPHILIC (W) MOLECULE) OR (LIPID)
      OR (POLYLYSINE)))
   834   (GENE (W) DELIVERY (W) SYSTEM?)
     0   S11 AND S29
     1   S26 AND S29
nd s27
       26  S21
       21  S27
2       2  S21 AND S27
3,k/all

/1     (Item 1 from file: 155)
)File 155:MEDLINE(R)
:t only 2000 Dialog Corporation. All rts. reserv.

)   99296265
radable *alginate* *microspheres* as a delivery system for naked

al N; HogenEsch H; Guo P; North A; Suckow M; Mittal SK
ment of Veterinary Pathobiology, School of Veterinary Medicine,
iversity, West Lafayette, Indiana 47907, USA.
n journal of veterinary research (CANADA) Apr 1999, 63 (2)
ISSN 0830-9000 Journal Code: CKL
ct/Grant No.: GM55168-01, GM, NIGMS
ges: ENGLISH
.t type: JOURNAL ARTICLE

radable *alginate* *microspheres* as a delivery system for naked

*alginate* is a naturally occurring polysaccharide that can easily
merized into a solid matrix to form *microspheres* . These
able *microspheres* were used to encapsulate plasmid DNA
g the bacterial beta-galactosidase (LacZ) gene under the control
r the cytomegalovirus (CMV) immediate-early promoter or the Rous
virus (RSV) early promoter. Mice inoculated orally with
eres* containing plasmid DNA expressed LacZ in the intestine,
nd liver. Inoculation of mice with *microspheres* containing both
mid DNA and bovine *adenovirus* type 3 (BAd3) resulted in a
nt increase in LacZ expression compared to those inoculated with
res* containing only the plasmid DNA. Our results suggest that
es are capable of augumenting transgene expression by plasmid DNA
itro and in vivo.
Galactosidase--Biosynthesis--BI; Biodegradation; Cattle; Cell Line
Transplantation; Cytomegalovirus--Genetics--GE; Drug Carriers;
*Vectors*; Mastadenovirus; Mice; Mice, Inbred BALB C;
res*; Promoter Regions (Genetics); Recombinant Proteins
```

hesis--BI; Sarcoma Viruses, Avian--Genetics--GE; 3T3 Cells
l Name: beta-Galactosidase; (Alginates; (Drug Carriers; (Genetic
; (Recombinant Proteins; (alginic acid

2 **(Item 2 from file: 155)**
File 155:MEDLINE(R)
t only 2000 Dialog Corporation. All rts. reserv.

99210253
te *microspheres* as carriers of recombinant adenoviruses.
sundaram S; Feinstein S; Nicholson JP; Leong KW; Garver RI Jr
ent of Biomedical Engineering, Johns Hopkins University,
, Maryland 21205, USA.
gene therapy (UNITED STATES) Mar-Apr 1999, 6 (2) p107-12,
-1903 Journal Code: CE3
es: ENGLISH
t type: JOURNAL ARTICLE

te *microspheres* as carriers of recombinant adenoviruses.
us administration, both of which limit the efficiency of target
fection. As a first step toward overcoming these limitations, rAds
apsulated in coacervate *microspheres* comprised of *gelatin* and
followed by stabilization with calcium ions. Ultrastructural
n showed that the *microspheres* formed in this manner were 0.8-10
n diameter, with viruses evenly distributed. The *microspheres*
a sustained release of *adenovirus* with a nominal loss of
ty. The pattern of release and the total amount of virus released
led by changes in *microsphere* formulation. Administration of the
us*-containing *microspheres* to human tumor nodules engrafted in
ed that the viral transgene was transferred to the tumor cells. It
ided that coacervate *microspheres* can be used to encapsulate
rAd and release it in a time-dependent manner.
tors: Adenoviridae--Genetics--GE; *Gene Therapy--Methods--MT; *
eres*; Calcium--Pharmacology--PD; Cytomegalovirus--Metabolism--ME;
onse Relationship, Drug; Genetic *Vectors*; Luciferase--Metabolism
g Neoplasms--Therapy--TH; Mice; Mice, Nude; Microscopy, Confocal;
, Electron, Scanning; Neoplasms, Experimental--Therapy--TH; Time

Name: Luciferase; (Genetic *Vectors*; (Calcium

Items	Description
560	COACERVATE?
236	(VIRAL (W) VECTOR?) OR (RETROVIRUS OR ADENOVIRUS OR HSV-1) OR (ADENO-ASSOCIATED (W) VIRUS)
3	S1 AND S2
2	RD (unique items)
989	(CONTROLLED (W) RELEASE)
857	MICROSPHERE?
1	S5 AND S6 AND S2
351	(NUCLEIC (W) ACID) OR (VECTOR?)
0	S1 AND S8 AND S5
1	S5 AND S6 AND S8
44	S2 AND S6
1	S11 AND (ANIONIC OR CATIONIC)
4	S11 AND ((AMPHIPHILIC (W) MOLECULE) OR (LIPID) OR (POLYLYSINE))
3	RD (unique items)
0	S13 AND (CALCIUM)
3	S11 AND (GELATIN OR ALGINATE)
2	RD (unique items)
354	(DELIVERY (W) AGENT?)
0	S1 AND S8 AND S18
0	S11 AND (FIVE (W) ?)
26	RD S11 (unique items)

```
      3   S21 AND ((RECOMBINANT (W) PROTEIN) OR (ANTIGEN))
   9162   LIPOSOME?
   0457   S23 OR S8
    636   S6 AND S24
     26   S25 AND (GELATIN OR ALGINATE)
     21   RD (unique items)
      7   S27 AND (CALCIUM OR ((AMPHIPHILIC (W) MOLECULE) OR (LIPID)
          OR (POLYLYSINE)))
    834   (GENE (W) DELIVERY (W) SYSTEM?)
      0   S11 AND S29
      1   S26 AND S29
      2   S21 AND S27

may00 11:15:48 User259876 Session D61.2
    $5.03    1.573 DialUnits File155
       $0.20  1 Type(s) in Format  2
       $2.20  11 Type(s) in Format  3
    $2.40  12 Types
3   Estimated cost File155
    $7.78    1.389 DialUnits File5
       $4.95  3 Type(s) in Format  3
    $4.95  3 Types
3   Estimated cost File5
   $16.50    1.941 DialUnits File73
       $4.70  2 Type(s) in Format  2
      $14.10  6 Type(s) in Format  3
   $18.80  8 Types
0   Estimated cost File73
    OneSearch, 3 files,  4.903 DialUnits FileOS
0   TYMNET
6   Estimated cost this search
7   Estimated total session cost   5.018 DialUnits


s: Signed Off. (56 minutes)
```